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By Email: JointCommittee.Environment@malegislature.gov

The Commonwealth of Massachusetts
Joint Committee on Environment, Natural Resources and Agriculture
State House
Boston, MA 02133

Re: Bill S. 590

Dear Committee Members:

My family has been nursery farming in Massachusetts for over 70 years. I write in opposition to the proposed Bill S. 590. In the interest of full disclosure, I am also a plaintiff in a Land Court matter opposing solar development over cranberry bogs in my neighborhood for reasons that may include those mentioned below.

The purpose of the proposed Bill claims to be “An Act encouraging the use of renewable energy on agricultural land.” In addition, the Bill will transfer control of regulations and policies from the Department of Public Utilities under Chapter 25 to the Division of Energy Resources under Chapter 25A.

Under the Bill, renewable energy generating sources “...shall be subject to the provisions afforded to agriculture in accordance with section 3 of chapter 40A.” Thus, the Bill places industrial power companies into the same category as agriculture and will open the door to any renewable energy development on Chapter 61 A lands with limited local control. The Bill may also remove or allow challenge to the requirement for PILOT (Payment in Lieu of Taxes) agreements that towns have used to generate funds. Most concerning, the Bill would allow unchecked expansion of renewable energy development on our declining agricultural resources, increase environmental risk and hazards on these resources and remove the due process rights of local citizens to decide what developments they want in their towns and where they want them placed.

Bill S. 590 should be opposed by the Committee for the following reasons:

- Why are we “encouraging” energy production (renewable or not) on agricultural land? Energy production is an industrial use and should not be paired with our declining farmland. The Bill violates historical zoning for use by pairing two independent and diametrically opposed uses. The ancient history of farming and need for food production for survival necessitated the special treatment afforded to farmers under Chapter 61A. Here, it appears this special treatment is being proposed to satisfy the greed of special interests under a facade of energy claims for the common good. The Bill encourages the conversion of farmland to energy production, which will become its primary use, no matter the unproven claims to the contrary. The purpose is increased industrial energy production, the underlying agricultural use will be sacrificed because of the windfall profits being made by the stakeholders.
- Alternative energy projects located on landfills, where there may already be contamination or impermeable soils to contain contaminants, sounds reasonable, whereas alternative energy projects located on farmland is an act of environmental and community suicide. (See attached – 6-21 The Dark Side of Solar; 11-19 Solar Panel Toxic Waste)
- The claim that such Bills help farmers is questionable. Alternative energy projects provide above market gains to alternative energy developers and farm landowners not necessarily farmers. Anyone who has gone to the grocery store recently and seen the price of food knows that farmers are not enduring abnormal hardship. Farming has always been a risky business, as true farmers are in it for more than money.
 - Cranberry farmers in Massachusetts struggled for years due to oversupply, poor plant varieties and smaller land plots. Some of those factors have been altered, some may never be resolved. However, should US taxpayers and MA ratepayers be saddled with the long-term costs of paying for the above market returns and the retirements of cranberry landowners?
- Where are the long-term studies to show the “...renewable energy generating source does not impede the continued use of the land for agricultural or horticultural purposes...” as required by the Bill?
 - In 2019, a deeply flawed 3-month study (for a plant with a 16-month lifecycle) using plywood panels, was used to justify the approval of solar over cranberry projects all over Massachusetts by MDAR (Massachusetts Department of Agricultural Resources) and the DOER (Department of Energy Resources). Independent cranberry industry experts called the experiment inadequate and unresponsive of compliance with the SMART program. The Director of the mockup experiment repudiated the study in 2021 in deposition testimony. Recently, it was learned the DOE (Dept of Energy) will provide a \$1.8M grant, involving some of the same participants in the original mockup, to study alternative energy over agricultural uses that may provide the evidence to show whether alternative energy impedes the underlying agricultural use.

- Does it make sense for MDAR and the DOER to have allowed these unproven projects 2 years ago, before we may have proof of impact 3 to 4 years from now? Is there a reason the DOER has failed to include a yield requirement under its SMART program for agricultural solar tariff generation units?
- The impact from the Bill will be to remove local control over these hazardous projects and to allow largely unregulated development of our diminishing farmlands. Under the Bill, control will move from the local community to the State level. Clearly, a power grab by special interests meant to remove local opposition.
- Will the Bill as written, allow solar developers and other alternative energy providers to challenge the PILOT (Payment in Lieu of Tax) agreements used by Towns as funding sources from these projects?
- The Bill may be in conflict with Chapter 61A, Section 2A, subsection (a): “A renewable energy generating source on land primarily and directly used for agricultural purposes pursuant to section 1 or land primarily and directly used for horticultural purposes pursuant to section 2 shall: (i) produce energy for the exclusive use of the of the land and farm upon which it is located, which shall include contiguous or non-contiguous land owned or leased by the owner or in which the owner otherwise holds an interest; and (ii) not produce more than 125 per cent of the annual energy needs of the land and farm upon which it is located, which shall include contiguous or non-contiguous land owned or leased by the owner or in which the owner otherwise holds an interest.”
- The Bill benefits alternative energy developers and landowners with windfall profits at the expense of subsidies by US taxpayers, Massachusetts rate payers, municipal control, local resident due process and the environment with significant unintended consequences.
 - Why does Massachusetts have the third highest electricity rates in the country after Alaska and Hawaii? Who will pay for the increasing amounts of hazardous waste and negative impacts from these projects?
- Under the DOER 2020 emergency regulations, all solar projects over 500kW must be paired with battery energy storage systems. Battery energy storage systems are new to large scale solar development in Massachusetts and require towns to amend their bylaws to allow them with solar. Instead of the proposed Bill, why not propose regulation to require the DOER to inform municipalities to update their bylaws to allow battery energy storage systems when and where they choose?
- Battery energy storage systems pose a risk to the health, safety and welfare of the public. Toxic components of lithium-ion batteries include the toxic metal cobalt, hydrofluoric acid and PFAS (Perfluoroalkyl and Polyfluoroalkyl Substances). The hazardous materials in lithium-ion batteries do not belong in sensitive environmental areas, neighborhoods or areas of food production. There is a “probable” failure risk for these systems during their 20-to-30-year life cycle. Mitigation attempts may reduce risk but cannot eliminate it. Do we really want to add toxic elements to our farmland?

- Instead of the proposed Bill, the proponents should sponsor a bill that prohibits battery energy storage systems in floodplains, ACECs (Areas of Critical Environmental Concern), aquifers and well protection zones. Is there any reason to not protect these areas from the unintended consequences of these projects?
- The EPA has found PFAS in solar panels, only one of the toxic elements in these systems. Should we believe the claims of communist Chinese panel manufacturers of non-hazardous materials in solar panels? (See attached – 8-18 EPA confirms GenX)
- Do we, as a society, want to support slave labor, used by Chinese manufacturers in the production of solar panels, as Senator Kerry has stated, by encouraging alternative energy on agricultural land? Most solar panels are made in China.
- Do we, as a society, want to support slave and child labor, used to mine 2/3rd of the cobalt found in lithium-ion batteries from the Republic of Congo, by encouraging alternative energy on agricultural land?

What the proposed Bill is actually encouraging is greed with more money for alternative energy developers and landowners, destruction of farmland, increase in hazardous waste, damage to the environment, loss of local control, negative impact to the health, safety and welfare of the public and perhaps donations from special interests to the Bill sponsors. Obviously, increasing opposition from local groups, environmentalists, actual farmers etc. is concerning to and negatively impacting the hoped for increased windfall of the alternative energy developers and landowners. The real objective of the Bill is to remove any opposition to the special interest gravy train.

A better way:

- Alternative energy programs have gotten a free ride for far too long. It's time to look at the pros and cons of these programs and to develop reasonable policies that make sense, protect the environment and take into account the realities of energy economics. The proposed Bill fails on all accounts. It is more of the same irresponsible, ineffective, ignorance based, damaging, expensive, flawed, special interest energy policy.
- The problem with existing alternatives like solar is they require too much land. We need to stop subsidizing, unproven projects with unknown consequences under the Not SMART program, and the greedy stakeholders that benefit from them. These projects require subsidy because they are not efficient or market ready.
 - For example, with solar, we need more research to make better quality panels in the US and better, safer battery systems in the US, which has stronger environmental laws than foreign manufacturers.

- Stop subsidizing the unintended consequences of hazardous waste and negative impacts with these projects. Alternative energy projects on landfills may make sense, but not on diminishing farmland, even with the excuse of claiming to help farmers.
- Prohibit alternative energy projects and especially battery energy storage systems in floodplains, aquifers, ACECs and well protection districts.
- Let those alternative energy developers, landowners, sponsors etc. who have financially benefited from legislation supporting these systems assume the liability for the hazards and risks that exist or develop from them, including hazardous waste, pollution, damage to neighbors etc.

Therefore, I request the Committee oppose Bill S. 590, in fulfillment of their civic obligation to the people of Massachusetts.

Very truly yours,

Joseph Cogliano

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Attachments: 6-21 The Dark Side of Solar; 11-19 Solar Panels Produce Toxic Waste, 8-18 EPA Confirms GenX